EDEN VALLEY LOCAL

INTEGRATED RESOURCE PLAN

DRAFT PLAN

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PREFACE

This planning document was prepared by government agencies and public consultants in recognition of the need for improved management of Alberta's lands and resources. It applies only to public lands within the Eden Valley planning area, not to private or federal lands.

The plan presents the Government of Alberta's resource management policy for public lands and resources within the area. It is intended to be a guide for resource managers, industry and the public having responsibility or interests in the area, rather than a regulatory mechanism. Resource potentials and opportunities for development are identified with a view to assisting in the economic progress of Alberta. The plan is sufficiently flexible that all future proposals for land use and development may be considered. No legitimate proposals will be categorically rejected. Energy resource decisions are subject to the application of legal and approved regulatory processes under the jurisdiction of the Minister of Energy. This plan may influence regulatory decisions, but will not result in the categorical approval or rejection of energy proposals. The provincial government is committed to serving Albertans; should a proposal not be in keeping with the provisions of the plan, staff will work with the proponent to explore alternative means for accommodating the proposal in a more appropriate location, either in this planning area or on other public lands. The rejection of any proposal will be done, only in writing, by the minister or his designate.

A detailed outline of implementation will be provided for this plan to identify the necessary implementation actions and roles. This outline will also provide for the continuing review of the plan so that it may accommodate changing needs and situations. Wherever possible, the private sector will be provided with the opportunity to actively be involved in the operational delivery of the plan.

Implementation is subject to the normal budget approval process. In establishing overall priorities, opportunities in other planning areas and areas currently outside the planning process will be considered. While the plan identifies resource potentials and opportunities, the realization of these may require the dedication of major amounts of public funds. The plan will be used on the understanding that any actions required for implementation will only be undertaken as budgetary approvals are given in the normal way. The private sector will be given the first opportunity to provide any development required.

This plan has no legal status and is subject to revisions or review at the discretion of the Minister of Forestry, Lands and Wildlife.

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1.0 INTRODUCTION

A Policy for Resource Management of the Eastern Slopes (Eastern Slopes Policy), approved by provincial cabinet in July 1977 and revised in 1984, identifies integrated resource planning under a comprehensive inter-agency approach as the means for effective management of the resources of the Eastern Slopes region of Alberta. Preparation of integrated resource plans by provincial government agencies having responsibility for management of public lands and resources is one form of implementation of the Eastern Slopes Policy.

In June 1985, in response to public concerns, the Associate Minister of Public Lands and Wildlife removed 186 km² (72 sq. mi.) of land along the western edge of the municipal district of Foothills from the Kananaskis Country Sub-Regional Integrated Resource Plan and requested preparation of a separate local integrated resource plan for the area. The deputy ministers on the Natural Resources Coordinating Council subsequently confirmed the intent to prepare a local plan for the area in October 1985. The Eden Valley Local Integrated Resource Plan was initiated in May 1986, as part of the 1986/87 planning program.

The terms of reference for the Eden Valley plan were reviewed by the public and finalized for distribution in June 1987. They provide a framework for preparation of the plan. Collection and analysis of a wide variety of resource data occurred during the spring and summer of 1987. The data were used to develop resource management objectives and guidelines that were incorporated into the draft plan. Changing priorities within the planning program delayed progress on the plan by several months. After public review, the draft plan will be reviewed by a series of government interdepartmental committees and eventually submitted to the Minister of Forestry, Lands and Wildlife for approval.

2.0 PLANNING AREA

The Eden Valley planning area is a 186 km² (72 sq. mi.) tract of low foothills west of the village of Longview in southwestern Alberta (Figure 1). Although the planning area is ecologically diverse, the dominant ecoregion is aspen parkland which consists of a mix of deciduous forests and grasslands. Several tracts of montane mixedwood forest are located in the south and west and an area of boreal foothills is found in the north. Small subalpine outcrops are located on the western fringe of the planning area. The Highwood River and a number of creeks originate in the mountains to the west and flow through the area.

The Eden Valley planning area is bordered on the west by the Kananaskis Country Recreation Area which coincides with Improvement District #5. The western boundary of Eden Valley is also the Green Area/White Area boundary and the Rocky Mountain Forest Reserve boundary. The eastern boundary of the planning area coincides with the eastern boundary of the Eastern Slopes Policy region. The Eden Valley planning area is entirely in the municipal district of Foothills #31. Approximately 7.8 km² (3 sq. mi.) of the Eden Valley Indian Reserve #216 is in the planning area. There are 165.3 km² (64 sq. mi.) of public land and 20.7 km² (8 sq. mi.) of private land in the planning area.

Domestic livestock grazing is the main resource use in the planning area. All the provincial public land in the planning area is incorporated into 10 grazing leases. Hunting, fishing and camping are popular recreational activities. The potential for timber harvesting exists in portions of the planning area. Petroleum and natural gas exploration and development have been minimal. Secondary Road 541 crosses the planning area and provides access to Kananaskis Country to the west.

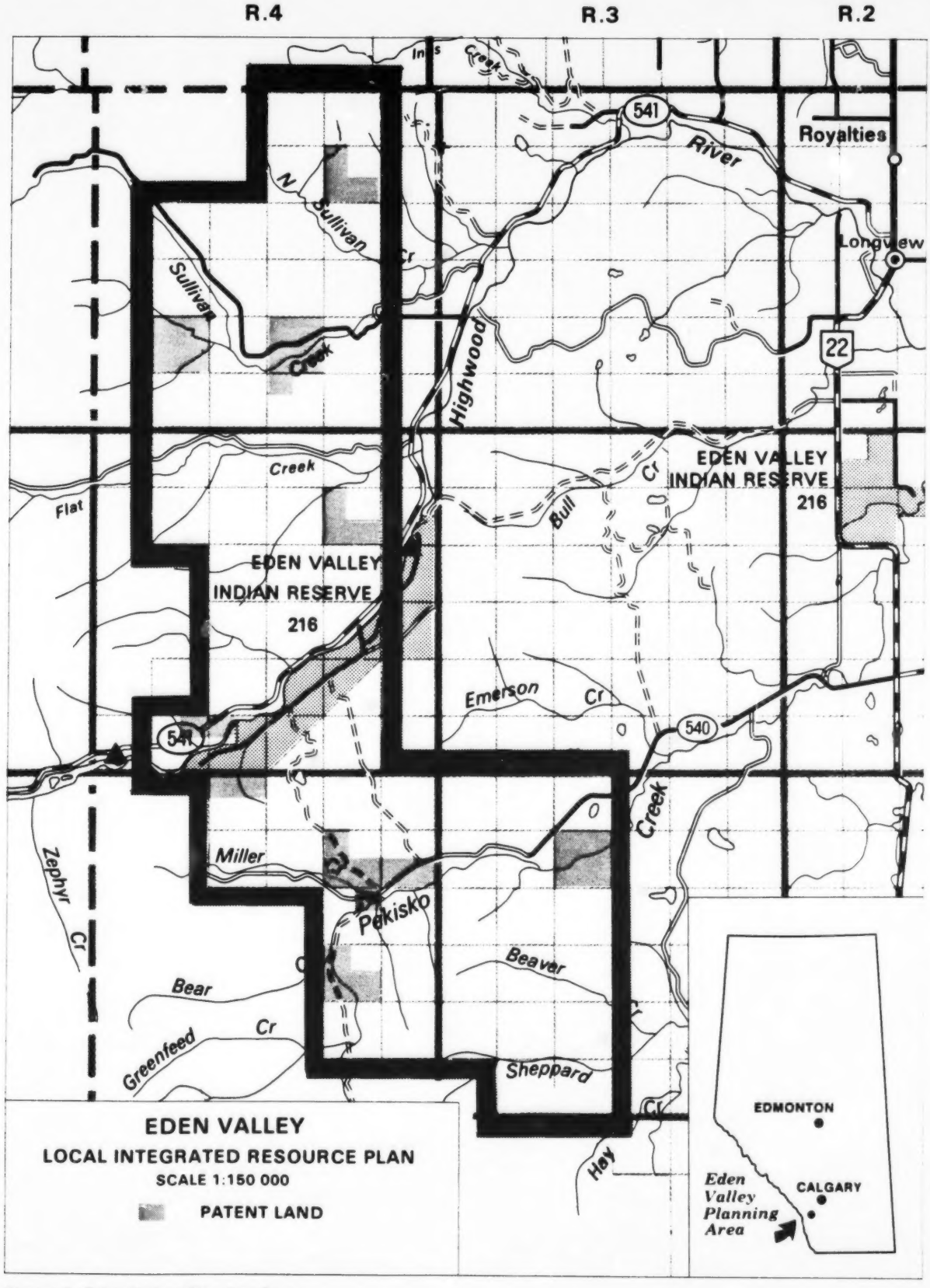

Figure 1 Eden Valley Planning Area

3.0 PURPOSE AND SCOPE OF THE PLAN

The purpose of the Eden Valley Local Integrated Resource Plan is to provide direction for the management and use of public resources in the planning area to maximize benefits for Albertans. A resource is defined as anything perceived by society as having value. It includes items traditionally considered to be resources such as land, timber and minerals as well as less tangible resources having no obvious market value such as unique ecosystems and recreational opportunities. Generally, the plan maximizes benefits by specifying where, when and how resources and resource uses will be managed.

The plan provides a framework for developing and assessing future actions by provincial government agencies and the private sector. More specifically, the plan provides the government with direction and supporting information for: (a) development and implementation of programs; (b) review and granting of dispositions and approvals for private sector development and use of public resources; and (c) allocation of manpower and funds within existing budgets. The plan provides the private sector with: (a) a clear statement of government intentions for resource management in the planning area; and (b) opportunities for resource development that are compatible with government policy and likely conditions under which such development could occur.

Direction in the plan is provided by:

1. clarifying, integrating and explicitly stating resource management objectives;

2. providing guidelines for achieving stated resource management objectives;

3. applying the Eastern Slopes Policy zoning boundaries in the planning area; and

4. resolving identified resource management issues.

As a local integrated resource plan, the Eden Valley plan uses a working map scale of 1:50 000. The plan deals with public lands and resources only; it does not address or apply to private land or public resources under private land. However, the effects of land uses on private land and in areas adjacent to the planning area have been considered.

4.0 PARTICIPANTS IN PLAN DEVELOPMENT

A wide range of opportunities to participate in development of the Eden Valley plan has been provided to ensure comprehensive consideration of resource values and to increase commitment to the final plan. Representatives of provincial government agencies, regional authorities, organized public interest groups and the general public have been involved.

A planning team approach is used in the development of integrated resource plans. The planning team consists of representatives from government agencies having major responsibilities or interests in resource management in the planning area, plus a team coordinator who is responsible for the overall coordination of plan development. The Eden Valley planning team has representatives from the following agencies:

1. Department of Forestry, Lands and Wildlife

    (a) Alberta Forest Service
    (b) Fish and Wildlife Division
    (c) Public Lands Division

2. Department of Culture and Multiculturalism, Archaeological Survey

Planning team members are field-level resource managers with specific knowledge of resources in the Eden Valley planning area. The team is small in the interests of efficiency and effectiveness.

Provincial government resource management agencies have the option of becoming consultants to the planning team if their interests in a planning area are not significant enough to justify appointing a representative to the planning team. Consultants to the planning team are informed about the progress of the plan and have the opportunity to comment when issues relating to their jurisdiction are being discussed and when planning documents are produced.

The following provincial government agencies have consultants on the Eden Valley plan:

1. Agriculture;
2. Energy Resources Conservation Board;
3. Environment;
4. Energy;
5. Recreation and Parks;
6. Tourism; and
7. Transportation and Utilities.

The Calgary Regional Planning Commission also acts as a consultant and provides comments on planning products.

A public involvement program is conducted during plan development to provide the public with information and opportunities to comment on planning products. Specific objectives of public involvement are:

1. To use the knowledge of residents in evaluating and improving the resource data base;

2. To obtain public opinion on issues that should be addressed and resource management direction that should be included in the plan;

3. To build public support for the plan;

4. To inform the public about the potential impacts of resource management decisions; and

5. To inform government officials and politicians about public opinion regarding the plan.

Opportunities for public involvement were provided during preparation of the terms of reference. In addition, public review of the draft plan will be occurring. At the initial stages of plan development, an attempt was made to contact all individuals and groups interested in participating. Subsequent effort was concentrated on those parties that indicated a continuing interest.

5.0 POLICY AND PLANNING CONTEXT

Resource management activities in the Eden Valley planning area are guided by numerous government directives including legislation, policies and regulations. These directives provide the context for development of the Eden Valley integrated resource plan.

5.1 Legislation and Associated Directives

A range of resource management legislation and associated regulations apply throughout Alberta and were considered during development of the Eden Valley plan. Examples of such legislation are the Public Lands Act, Water Resources Act, Forests Act, Wildlife Act and Historic Resources Act. In addition, there are numerous government directives such as orders-in-council and ministerial orders, that guide resource management activities.

5.2 A Policy for Resource Management of the Eastern Slopes

A Policy for Resource Management of the Eastern Slopes - Revised 1984 provides direction for resource management and planning for the entire Eastern Slopes Policy Region, including the Eden Valley planning area (Figure 2). The document is split into a policy component and a regional plan.

The policy section identifies provincial government intentions for the area, including opportunities and priorities for resource management. Watershed management and provision of benefits from recreation and tourism are high priorities. Other priorities are maintenance of the unique character of the Eastern Slopes, resource management that is consistent with principles of conservation and environmental protection, management of renewable resources for the long term, integrated resource planning and public involvement.

The regional plan for the Eastern Slopes provides more specific direction in the form of regional resource management objectives, land use zoning and resource management guidelines. Objectives are provided for 10 resource sectors, while eight regional land use zones are used to designate areas for varying degrees of protection, resource management and development. The regional plan contains the Table of Compatible Activities (Table 1) that categorizes representative resource use activities according to their compatibility with the intent for each land use zone. The general intents for the zones are presented in Table 2. The Eden Valley local plan provides more specific resource management direction than the Eastern Slopes Policy and the zoning in the plan takes precedence over the regional zoning.

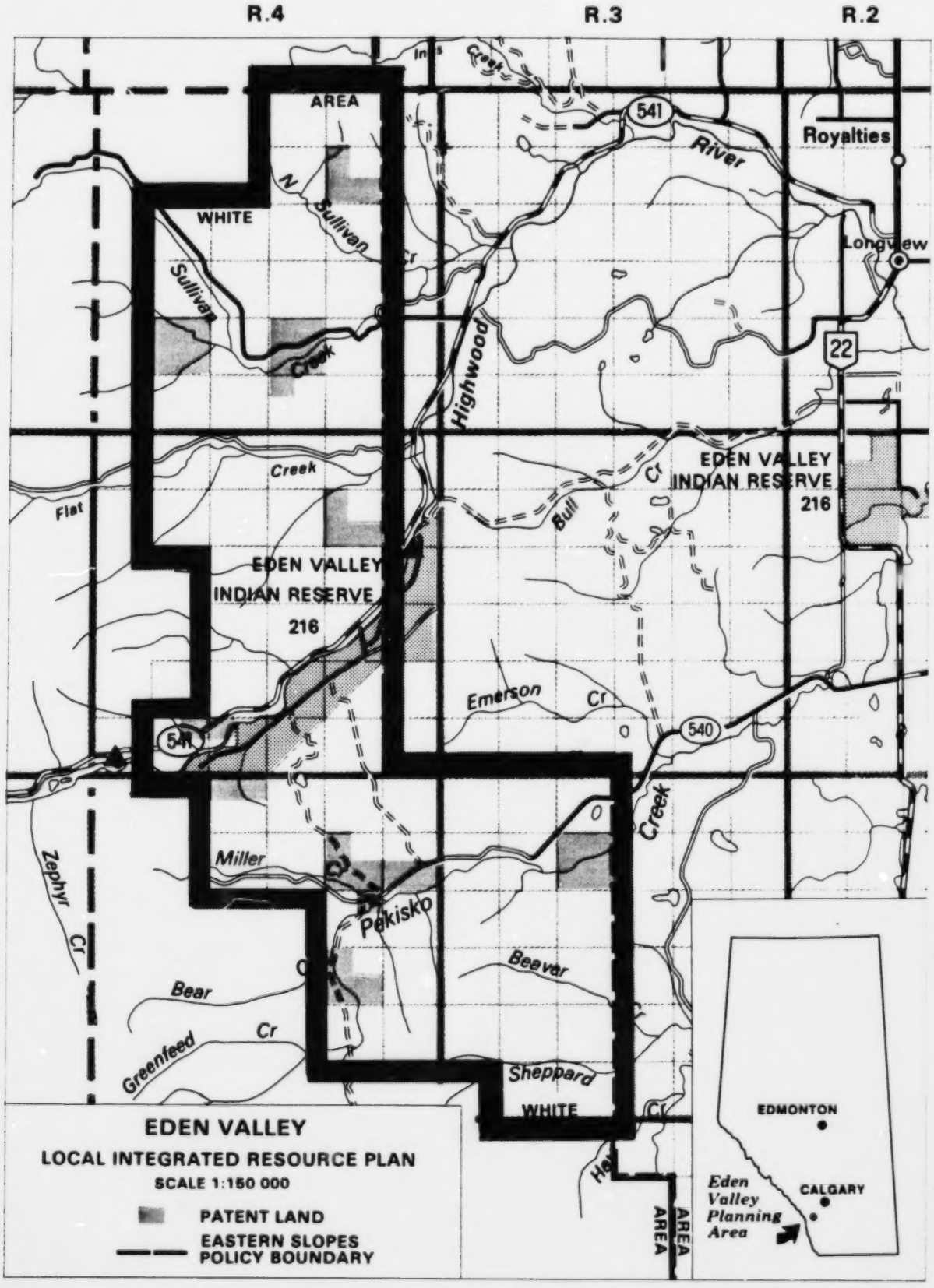

Figure 2 Administrative Boundaries

TABLE 1. COMPATIBLE ACTIVITIES BY LAND USE ZONE

ZONE / ACTIVITY	1 PRIME PROTECTION	2 CRITICAL WILDLIFE	3 SPECIAL USE	4 GENERAL RECREATION	5 MULTIPLE USE	6 AGRICULTURE	7 INDUSTRIAL	8 FACILITY
Non-motorized recreation	■	■		■	■	■		■
Fishing	■	■		■	■	■		■
Hunting	■	■			■	■		
Scientific study	■				■	■	■	■
Trapping	■				■	■		
Trails, non-motorized				■	■	■		■
Transportation & utility corridors					■	■	■	■
Primitive camping				■	■	■		
Intensive recreation				■	■			■
Off-highway vehicle activity					■	■	■	■
Logging					■	■	■	
Domestic grazing					■	■		
Petroleum and natural gas exploration & development					■	■	■	
Coal exploration					■	■	■	
Coal development					■	■	■	
Mineral exploration & development					■	■	■	
Serviced camping				■	■			■
Commercial development								■
Industrial development					■		■	
Residential subdivisions						■		■
Cultivation						■		

■ Compatible Use — Uses that are considered to be compatible with the intent of a land use zone under normal guidelines and land use regulations.

□ Permitted Use — Uses that may be compatible with the intent of a land use zone under certain circumstances and under special conditions and controls where necessary.

□ Not Permitted Use — Uses that are not compatible with the intent or capabilities of a land use zone.

These activities are only representative of the range of activities that occur in the Eastern Slopes. For these and any other activities, the possibility of whether they should or should not take place in a particular area must always be measured against the fundamental management intentions for that zone. Since economic opportunities are not all known in advance, site-specific developments may be considered in any zone.

TABLE 2

PLANNING TEAM INTERPRETATION OF THE
INTENTS FOR THE EASTERN SLOPES POLICY ZONES

#	Zone	INTENT FOR THE ZONE
1	Prime Protection	To preserve environmentally sensitive terrain and valuable aesthetic resources.
*2	Critical Wildlife	To protect specific fish and wildlife populations by protecting aquatic and terrestrial habitat crucial to the maintenance of those populations.
*3	Special Use	To recognize historical resources, scientific research areas and lands that have unique management requirements or legislative status, or which cannot be accommodated elsewhere.
4	General Recreation	To retain a variety of natural environments to serve as a focus for a wide range of outdoor recreational activities.
*5	Multiple Use	To provide for the management and development of the full range of available resources, while meeting long-term objectives for watershed management and environmental protection.
6	Agriculture	To designate lands that are currently used or are considered suitable for cultivation or improved grazing.
7	Industrial	To recognize existing or approved industrial operations.
8	Facility	To recognize existing or approved settlement and commercial development areas.

* Applied in the Eden Valley planning area.

5.3 A Coal Development Policy for Alberta

A Coal Development Policy for Alberta (Coal Policy) released in 1976, guides the exploration and development of coal resources throughout the province. The province is divided into four categories of suitability for exploration and development. The Eden Valley planning area is entirely within Category 1 where no exploration or commercial development of coal resources is permitted.

5.4 White Area/Green Area

The Eden Valley planning area is in the White Area where suitable public land may be made available for settlement or agricultural development. The White Area and adjacent Green Area to the west were established by order-in-council in 1948. The Green Area contains lands that are not available for settlement or agricultural development other than grazing. The Green Area/White Area boundary along the western edge of the Eden Valley planning area was assessed and confirmed during development of the Kananaskis Country Sub-regional Plan (Figure 2). There are no proposals to change the boundary at this time.

5.5 Plans Under the Planning Act

The Planning Act provides for the planning and regulation of land use and the pattern of human settlement in Alberta. Most private development, whether on private or public land, is under the jurisdiction of the act and plans prepared under the Planning Act are legally binding. The Calgary Regional Plan and the municipal district of Foothills #31 General Municipal Plan apply to the Eden Valley planning area. The Eden Valley area is in an agricultural protection area under the general municipal plan. The purpose of this type of area is to protect high capability agricultural land from non-agricultural uses and minimize negative effects on agricultural operations in the area.

Integrated resource plans differ in that they apply only to provincial public lands and resources and have no legal status. However, the plans represent provincial government policy; government agencies implement the provisions of the plan under the authority of their enabling legislation.

Coordination between provincial resource management agencies and local authorities is essential to ensure the two types of plans are consistent and supportive of one another.

5.6 Fish and Wildlife Policy for Alberta

The Fish and Wildlife Policy for Alberta was approved by Cabinet in October 1982, and provides general direction regarding outdoor recreation, wildlife resources, fisheries resources and regulatory aspects of fish and wildlife use. The most significant components of the policy are a provincial fish and wildlife outdoor recreation plan and an assessment of the status of fisheries and wildlife resources. Fish and Wildlife Division management objectives for the Eden Valley area will be developed to achieve a portion of provincial objectives for these resources.

6.0 RESOURCE MANAGEMENT STRATEGY

The resource management strategy for the Eden Valley planning area consists of a resource management intent statement, a set of resource management objectives and guidelines, and Eastern Slopes Policy zoning. The resource management intent for the planning area is to allow for the use of the full range of available resources while minimizing adverse impacts on the watershed and other renewable resources.

A resource management objective describes a desirable condition or state for a resource or resource use that can be achieved through management action. A resource management guideline describes a management action or a condition on resource use that contributes to achievement of resource management objectives.

The Eden Valley plan uses the zoning categories and the table of compatible activities from the Eastern Slopes Policy to provide resource management direction. The planning team interpreted the general intents for the Eastern Slopes Policy zones (Table 2) and modified the zoning boundaries in the planning area. Zoning does not apply to privately owned land.

After considering the eight possible zone types, the planning team zoned the planning area as shown on the map in the map pocket. Critical Wildlife Zoning (Zone 2) was applied to riparian areas along the Highwood River and several creeks to protect elk winter range and fisheries. It was also applied to a mixed montane/aspen parkland area in the southeastern corner of the planning area to protect elk winter ranges. Special Use Zoning (Zone 3) was applied to the portion of the Eden Valley Indian Reserve within the planning area to recognize the unique legislative status of these lands. Multiple Use Zoning (Zone 5) was applied to the remainder of the planning area to provide for management and use of a range of resources while meeting long-term objectives for watershed management and environmental protection.

The following set of objectives and guidelines are organized alphabetically by resource sector and no priority is intended or implied by the sequence.

6.1 Access

Discussion

The major access route in the Eden Valley area is Secondary Road 541 that runs along the north side of the Highwood River across the centre of the planning area. This paved road provides access from Highway 22 near Longview to the Highwood Junction area of the Kananaskis Country Recreation Area. Most traffic on SR 541 passes through the planning area. Gravel roads along

Pekisko, Sullivan and Trap creeks provide access to Kananaskis Country and public land in the planning area for hunting, fishing and camping. The Trap Creek road is presently closed at the highway where it enters private land and the Sullivan Creek road is closed periodically where it crosses private land. Road closures have restricted recreational access in the area and may be displacing recreationists onto adjacent public and private land east of the foothills.

Objectives

1) To coordinate access development to minimize negative effects on resources and resource users; and

2) To meet the access requirements of resource users where appropriate.

Guidelines

1) Resource users will be encouraged to use common access corridors to minimize environmental impacts and duplication of effort and expense.

2) Grazing disposition holders will be encouraged to allow foot access at all times, and to restrict motorized recreational access to existing roads and trails.

6.2 Fisheries

Discussion

Important stream fisheries are found in the Eden Valley planning area. Rainbow, brook, cutthroat, bull trout and mountain whitefish are present in the area. Sullivan, Trap and Pekisko creeks provide significant fisheries and are key spawning streams for Bow River trout in their lower sections. Trap Creek is an important spawning, rearing and overwintering area for cutthroat and rainbow trout. Sullivan Creek and its tributaries are important for spawning, rearing and overwintering of rainbow trout. Rainbow, bull and brook trout and mountain whitefish are found in the Highwood River. Fishing for whitefish and trout are popular activities on the Highwood River and Sullivan Creek, respectively. The Highwood River and all tributaries are closed to fishing from April 1 to June 15 and November 1 to March 31. A summary of pertinent regulations is provided in the annual Guide to Sportfishing Regulations. The planning area is within Fish Management Area 5.

Objectives

1) To maintain and, where possible, enhance naturally reproducing game fish populations. A sub-objective is to maintain fish populations at the indicated levels in the following streams:

   a) Highwood River - 300 to 700 fish/kilometre;
   b) Sullivan Creek - 300 to 750 fish/kilometre; and
   c) Trap Creek - 300 to 500 fish/kilometre.

2) To provide a variety of angling opportunities for recreational use of fisheries resources.

Guidelines

1) Sport fish populations and habitat will be protected by minimizing contact between resource developments and streams, maintaining water quality and reclaiming disturbed sites.

2) The Highwood River and tributaries may be closed periodically to fishing to protect fish populations.

3) Fish and Wildlife Division will review operational activities and provide input through existing referral systems in accordance with fisheries habitat protection guidelines. Mitigative measures will be recommended to compensate for habitat loss, to minimize siltation and to enhance stream habitat.

6.3 Historical Resources

Discussion

To date, no prehistoric archaeological investigations have taken place within the planning area. However, large numbers of sites have been recorded to the immediate west along the Highwood River and several of its smaller tributaries. Several sites have also been recorded at dispersed roadway and pipeline projects east of the planning area along the Highwood River.

These archaeological sites contain remains of the activities of prehistoric hunting and gathering groups that frequented the area some 12 000 years before Europeans arrived. Typical features are campsites, animal kill sites, tipi rings and isolated scattered artifacts. Two ceremonial structures, a possible medicine wheel and a rare pictograph (rock painting) are also present. Although none are located in the planning area, these sites serve to indicate the variety of prehistoric archaeological resources that may be present throughout the Highwood River basin.

The potential for archaeological sites is high in parts of the planning area, with the Highwood River valley having the highest potential. The river valley was probably a major resource exploitation area and important travel corridor. Plains bison congregated in the foothills zone during winter to obtain shelter and forage; campsites and other remains may also be found in such areas. The river valley provided access between the bison-rich plains and varied mountain habitats, as well as into small diverse ecozones along the river tributaries. The Highwood River originates in a pass that allows access into the Kananaskis, Sheep and Elbow river drainages as well as into the Elk Valley of British Columbia. The tributaries of the Highwood River, ridge tops that served as game lookouts, deposits of stone suitable for making tools and several small lakes also have high archaelogical site potential. Early inhabitants are believed to have entered North America by way of an ice-free corridor along the Eastern Slopes, so ancient sites may be found in the planning area.

Palaeontological resources are most likely to be found in exposed bedrock. Although limited in the planning area, bedrock is exposed along stream courses and on some ridges. Bedrock deposits are late Mesozoic sandstone, shale or coal from the Brazeau Belly River Group, Alberta Group, Blairmore Formation and Kootenay Group. Potential palaeontological resources include ammonites, dinosaurs (footprints and bone), other vertebrates, plants, molluscs and pelecypods. Few assessments of the geology and palaeontology in the planning area have occurred, and no sites with palaeontological resources have been identified. Any new localities containing these resources would be of great importance and interest.

There are several sites within the planning area that are of interest to the Historic Sites Service of Alberta Culture and Multiculturalism. Five historic ranch sites with structures dating from the 1880s to the 1940s have been recorded. These are:

a) Stampede Ranch, SW25-17-4-W5M
b) Cartwright D. Ranch, SE25-16-4-W5M
c) Nelson and Earl Ranch, NW24-17-4-W5M
d) Melvin Nelson Ranch, SE10-17-4-W5M
e) Burkes Summer House and Stable, SW14-16-4-W5M

The first four sites have been assigned a preliminary rating of Priority 2 which indicates they have local or regional significance. Additional historical research may alter the rating to a Priority 1. The Burkes summer home and stable were constructed in 1911 and little is known of the historical significance of the site. The building would be assigned a Priority 3 rating which indicates a more typical example of building types in the area. In addition to the above potentially significant sites, the area of the Eden Valley Indian Reserve No. 216 may contain historic resources associated with native occupancy. Further fieldwork in the planning area would be required to determine the exact extent of historical resources.

Objectives

1) To conserve and protect historical resources (archaeological, historical, palaeontological and natural) from potential or actual impact associated with resource development.

Guidelines

1) Resource uses that result in land surface disturbance may require Historical Resources Impact Assessments prior to development.

2) The Resource Management Section of the Archaeological Survey of Alberta will participate in the land use referral process by reviewing proposed development projects in areas with high historical resources potential.

6.4 Mineral Resources

Discussion

Bedrock in the planning area consists of Lower Cretaceous sandstones, shales and conglomerates from the Blairmore Group. Bedrock is overlain by Upper Cretaceous rocks from the Blackstone, Bighorn and Wapiabi formations. Sandstones and conglomerates form the bedrock ridges and hills in the area because they are more resistant to erosion than the shales found in the lower areas. Overburden is mainly ground moraine, till, gravel, colluvium and stream deposits of alluvial material.

Surface materials (i.e., sand and gravel) are found in the southeastern portion of the planning area on the glacial floodplain adjacent to Pekisko Creek and in the western portion of the planning area on the glacial floodplain area adjacent to the Highwood River. Alberta Transportation and Utilities operates one gravel pit and has a second pit area under reservation on the Highwood River glacial floodplain. The municipal district of Foothills operates a pit under a Surface Material Lease on the Pekisko Creek glacial floodplain. There is potential for expansion of the surface material resource in the planning areas. The extent of reserves has been evaluated in the Highwood area but not in the Pekisko Creek area.

Petroleum and natural gas exploration and development have been limited to a few seismic lines and two drilled and abandoned wells. While the planning area is not currently productive, the potential for natural gas is considered moderate based on regional geology and the production of Rundle Formation gas from nearby wells. Existing Crown petroleum and natural gas agreements, which indicate current and future interest in activity, are concentrated in the southern half of the planning area.

The potential for coal is not high although there are a number of coal occurrences in the surrounding area, and thin seams having uncertain potential for development underlie the planning area. No other minerals are known to occur in the planning area.

Objectives

1) To provide opportunities for exploration and continued development of surface materials.

2) To continue to provide opportunities for exploration and development of mineral resources.

Guidelines

1) Exploration and development of mineral resources will be considered under the existing approval process.

2) Exploration programs will be reviewed to reduce environmental and visual impact.

3) Mineral exploration and development will be permitted in Zone 2 (Critical Wildlife) under the normal approval process provided the value of the area to wildlife can be maintained. Mineral activities should avoid Critical Wildlife areas as much as possible. Where avoidance is not possible, the project must be designed to minimize disturbance of wildlife habitat and undertake mitigative measures to maintain habitat capability in or adjacent to the project area. Reclamation will have wildlife habitat as a high priority in Zone 2.

6.5 Range Resources

Discussion

The planning area has a long history of domestic livestock grazing and grazing provides significant economic benefits to ranchers in the area. Eleven grazing leases and one ranching co-operative cover all public land in the area. The 1977 carrying capacity of leases was 15 099 Animal Unit Months (AUMs) of grazing. Brush and forest encroachment have reduced the present carrying capacity by 2345 to 12 754 AUMs. There is one farm development lease for growing hay or greenfeed in the area.

Objectives

1) To provide a forage base capable of supporting the 1977 carrying capacity which provided 15 099 AUMs for domestic livestock.

2) To increase the carrying capacity of the forage base above 1977 levels where development will not adversely affect other resources.

3) To maintain the forage base in good condition for use by domestic livestock and wildlife.

Guidelines

1) The annual loss of forage due to brush encroachment will be reduced by range improvement. Any losses of domestic grazing carrying capacity to wildlife use will be replaced elsewhere on the same lease.

2) Range management and development plans will be completed for grazing dispositions to identify areas suitable for development of tame or native forage. Grazing lessees will participate in preparation of the plans.

3) Periodic evaluations of grazing dispositions will be conducted to ensure carrying capacities are accurate and 45 per cent of total annual production is maintained as carryover. Carryover is important for range vigour and wildlife habitat.

4) Range improvement assistance to grazing lessees will be provided under the Range Improvement Regulations in effect when the lessee applies for range improvement.

5) Public land under grazing disposition will be assessed to identify lands capable of sustained yield timber production, forage production and wildlife support (i.e., habitat). The acreage suitable for timber and forage production will be calculated for each grazing disposition. The larger acreage will be set as the productive land base. A maximum of 40 per cent of the productive land base on each grazing disposition will be designated for native or tame forage production. A minimum of 60 per cent of the productive land base on each grazing disposition will be designated for sustained yield timber production. The wildlife resource will use the total acreage in the grazing disposition. The lands will be reserved from sale.

6.6 Recreational and Tourism Resources

Discussion

The Eden Valley planning area has been used for a variety of outdoor recreation including big game hunting, fishing, camping and horseback riding. Whitewater kayaking and canoeing are popular on the Highwood River, and several competitions have been held on this stretch of river. The planning area provides limited recreational opportunities for surrounding residents. There are

no campgrounds in the planning area, although the Alberta Department of Transportation and Utilities operates a small recreation area between Secondary Road 541 and the Highwood River immediately to the east of the planning area. Kananaskis Country, to the immediate west, is a major tourist attraction that provides a wide range of summer and winter outdoor recreational opportunities. Kananaskis Country serves local, regional, provincial, national and international recreational demands.

Recreational access to Kananaskis Country through the planning area and to some public land under grazing lease, has been restricted by landowners and leaseholders. Uncontrolled recreation has interfered with livestock grazing operations. For example, random camping along several creeks has interfered with cattle access to watering sites. Disruption of livestock, damage to range and deposition of garbage by recreationists have resulted in access restrictions by landowners and lessees. Recreational vehicle access across the privately owned sections of the Trap Creek, Sullivan Creek and Pekisko Creek roads is at the discretion of the landowners.

Objectives

1) To maintain the quality of recreational and tourism resources.

2) To maintain opportunities for non-motorized, low intensity recreation such as fishing, hunting, hiking, bird watching, berry picking and horseback riding.

Guidelines

1) Low intensity, dispersed recreational use will be promoted where it is compatible with environmental conditions and other land uses.

2) Recreational users will be encouraged to cooperate with grazing disposition holders through continued promotion of the Use Respect Program. Recreational users should contact leaseholders to obtain permission for access to grazing leases.

3) Grazing disposition holders will be encouraged to allow recreational users access to leased public land. Non-motorized recreational access should be allowed and motorized recreational access should occur only on existing roads and trails.

4) Random camping on public land within the planning area is discouraged. Camping at developed recreation areas in Kananaskis Country is encouraged.

5) In the event that the access situation changes, development of a staging area would be considered along the Trap Creek road at or near the boundary of Kananaskis Country.

6.7 Timber Resources

Discussion

The planning area is entirely in the White Area and includes portions of C01 and B02 forest management units. In the past, timber harvesting operations were undertaken on a liquidation basis before range improvement projects occurred. The planning area is currently being assessed, as part of the C01 and B02 units, to determine the potential for sustained yield forest management.

The forest is mostly within the mature to overmature age classes, and is composed of predominately lodgepole pine and aspen with a lesser component of white spruce. Preliminary indications are that the planning area supports a total volume of 246 088 m^3 of timber, of which 49 per cent is considered to be presently unharvestable as the result of steep terrain. A forest inventory will be done to more accurately determine the extent of timber resources in the planning area. Annual allowable cut levels will be established on the basis of this information. Timber resources are located primarily in the North Sullivan, Sullivan, Trap and Pekisko drainages. Evidence of dwarf mistletoe infection has been found in the Sullivan miscellaneous timber use (MTU) area northwest of the planning area.

The occurrence of forest cover in the planning area and Kananaskis Country to the west suggests a moderate to high potential for wildfires. The municipal district of Foothills (#31) is responsible for wildfire prevention and suppression in the Eden Valley planning area. The Alberta Forest Service will take action on wildfires in the planning area if there is a threat to public safety and natural resources in Kananaskis Country, or at the request of M.D. #31.

Objectives

1) To manage forest resources on a long-term, sustained yield basis for local or small scale commercial requirements integrated with other resource management objectives.

2) To protect the forest from damage or destruction by wildfire, insects, disease or other causes, and maintain healthy and stable forest conditions.

Guidelines

1) A forest inventory will be carried out in the planning area to provide a basis for determining annual allowable cut levels. Operational plans will

be prepared for each grazing lease with the participation of the lessee, and will integrate forest management with ranching operations and wildlife management. This information will be incorporated within a timber management plan to be prepared and implemented with an annual allowable cut defined for the C01 and B02 forest management units (See guideline 5 under Range Resources - Section 6.5).

2) Timber harvesting operations will be conducted using landscape logging techniques applied in the Bow/Crow Forest following principles contained in the Timber Harvest Cutblock Design Manual (ENR Report No. 43-1977), Forest Landscape Management Guidelines for Alberta (FLW Publ. No. T/125-1986) and operating ground rules established to protect wildlife and fisheries habitat.

3) Reforestation of harvested stands will occur in accordance with established reforestation policy.

4) The Alberta Forest Service will provide forest protection services, including fire suppression and advice about wildfire prevention, when there is a threat to public safety or natural resources in Kananaskis Country (i.e., the Forest Reserve). In other situations, the Alberta Forest Service will provide advice about wildfire prevention and respond to wildfires at the request of the municipal district of Foothills (#31).

5) Forest conditions will be monitored as required to determine whether dwarf mistletoe infection is present in the area and if on-site treatments are required.

6) Forest vegetation will be managed in a manner that will avoid detrimental changes to streamflow characteristics. Timber harvesting will occur in a way that optimizes snow catchment and retention in cutover areas to influence soil moisture regimes favourably.

6.8 Water and Watershed Resources

Discussion

The Eden Valley planning area is entirely within the drainage basin of the Highwood River. The largest stream in the planning area, the Highwood River, originates to the west in the mountains of Kananaskis Country, flowing to the northeast across the centre of the planning area and eventually draining into the Bow River downstream of Calgary. Sullivan, Trap (Flat), Pekisko and Sheppard creeks are major streams that also originate in the mountains and flow through the planning area. Minor streams are North Sullivan, South Sullivan, Cutthroat, Waldie, Deep, Marston, Miller, Dickson and Beaver creeks. Several small

waterbodies, known as the Beaudry Lakes, are located immediately south of the Eden Valley Indian Reserve.

Peak flows on the Highwood River occur in June with minimum flow levels from November to February. Summer peak levels and winter lows can differ by a factor of 50. A similar flow regime can be expected for the other streams in the planning area.

Water resources in the planning area are important for a number of uses. Waterbodies provide a focus for recreational activities including camping and picnicking. Sport fishing occurs on the Highwood River and several of the larger creeks. The 9.7 km (6 mi.) stretch of the Highwood within the planning area has numerous rapids and is popular for kayaking and canoeing. Fish and wildlife populations are dependent on water resources. The Highwood River and several tributaries are important as spawning areas for rainbow trout from the Bow River. Many creeks are used for stock-watering, and water from Pekisko Creek is used for irrigation downstream of the planning area.

Alberta Environment has prepared a planning study to address water resource management issues in the Pekisko and Stimson Creek basins. Short stretches of Pekisko Creek and upper Sheppard Creek, that drain into Stimson Creek, are within the Eden Valley planning area. Final results of the water management study are not available at this time and will be considered in future reviews of the Eden Valley plan.

Objectives

1) To maintain water quality in streams and rivers in the planning area.

2) To maintain water yield to satisfy on-site and downstream demands for domestic, agricultural (livestock grazing and irrigation) and industrial uses, and fish and wildlife populations. A sub-objective is to maintain adequate water flows in the Highwood River and Sullivan, Trap and Pekisko creeks to support rainbow trout spawning from the Bow River.

Guidelines

1) Soil erosion associated with land use activities will be minimized.

2) Alberta Environment will continue to monitor water yield and quality in the planning area.

3) Reclamation guidelines and standards will be followed and enforced for surface and subsurface dispositions. Areas disturbed by land use activities will be reclaimed within one year of initial disturbance or on a progressive basis where disturbance is long term.

6.9 Wildlife Resources

Discussion

The planning area supports elk, moose, white-tailed and mule deer, black bear, grizzly bear and cougar. Open south- and southwest-facing slopes are crucial to ungulate survival during winter, and the Highwood River valley and South Pekisko area are two of the most important ranges for elk in the province. The planning area also supports a variety of small furbearers with the most common species being beaver, muskrat, coyote, weasel and squirrel. A variety of birds, including raptors, are found in the planning area. Geese nest on small lakes in the southeast corner of the Nelson Ranch.

The planning area is within Big Game Zone 7 and Wildlife Management Units 310 and 312. In 1988, there were fall hunting seasons for white-tailed and mule deer, moose and elk in the planning area. Spring and fall seasons also occurred for black bear, with special hunting seasons for grizzly bear and cougar.

Big game hunters and outfitters use the planning area as a staging area for trips into Kananaskis Country since motor vehicles are prohibited in the adjacent portion of Kananaskis Country. There is one fur management area in the planning area.

Objectives

1) To maintain natural wildlife populations including ungulates, furbearers and birds. More specific components of this objective are:

   a) to maintain the Highwood River valley elk herd at a minimum of 300 animals;
   b) to maintain the Trap Creek elk herd at a minimum of 100 animals;
   c) to maintain the Pekisko Creek elk herd at 300 animals, the herd may be increased beyond 300 using appropriate techniques; and
   d) to maintain moose populations at four animals per square mile.

2) To protect the following critical wildlife areas for the indicated species:

   a) North Sullivan Creek valley for moose;
   b) Trap Creek valley for elk and deer;
   c) Highwood River valley for elk and deer;
   d) the eastern portion of the Pekisko area for moose, elk and deer; and
   e) the western portion of the Pekisko area for moose.

3) To maintain opportunities for consumptive and non-consumptive use of wildlife resources.

Guidelines

1) Disturbance of wildlife populations during sensitive time periods will be minimized. Disturbance will be reduced by managing access and controlling hunting activities.

2) Hunting and trapping regulations will be reviewed regularly in relation to hunter use, harvest levels and the condition of game populations, to ensure the long-term survival of game populations.

3) The Fish and Wildlife Division will continue to review and provide input to government referrals on land use activities with potential impact on wildlife resources. Emphasis will be placed on avoiding unnecessary negative impacts on wildlife and on working cooperatively with resource users to take advantage of opportunities for wildlife habitat enhancement.

4) Any increases in the Pekisko Creek elk herd beyond 300 animals will be monitored to ensure the level of domestic grazing in the area is not reduced.

7.0 PLAN IMPLEMENTATION, MONITORING AND AMENDMENT

General procedures and mechanisms for the implementation, monitoring and amendment of the Eden Valley Integrated Resource Plan are outlined in this section. A statement of program and project requirements will be contained in a supplemental implementation document.

General Implementation

The Eden Valley Integrated Resource Plan will be implemented within the existing government framework of legislation, agency responsibilities, policies and administrative mechanisms. The plan will be considered implemented when it is providing direction for government resource management activities and public resource use within the planning area. The direction provided in the plan for government resource management activities will be translated into existing, new or modified resource management programs, projects, operational plans and administrative procedures such as referral systems. The plan direction for public resource use activities within the planning area will eventually be translated into normal control mechanisms such as permits, licences and leases.

Provincial government resource management agencies that are participating in the implementation of the Eden Valley Integrated Resource Plan will be responsible for ensuring the effective delivery of the plan. The Central Regional Resource Management Committee (CRRMC) will coordinate implementation of the plan. Agencies must ensure their resource management activities are consistent with the direction contained in the plan. Each agency must also ensure that public use of those resources, for which the agency is responsible, occurs in a manner consistent with the plan.

The agencies, through the CRRMC, must also deal with any conflicts or concerns that arise with respect to implementation or interpretation of any provisions of the plan. These responsibilities are outlined by subject area below:

Referral System: Participating government management agencies will ensure that existing referral systems of the Alberta government are comprehensive and encompass all affected or concerned agencies within the planning area.

Plan Monitoring: The Eden Valley Integrated Resource Plan will be reviewed annually by the CRRMC to ensure:

(a) an assessment of the relevancy of the specified resource management objectives in light of changing conditions and new information;

(b) an assessment of resource management guidelines;

(c) an assessment of agency operational plans that ensures their consistency with the intents, objectives and guidelines contained in the Eden Valley plan; and

(d) preparation of a statement recommending amendments to the Eden Valley Integrated Resource Plan and future actions required to maintain or promote government resource management activities in the planning area.

An annual report will document changes in the plan. The report will also highlight the previous year's activities in the planning area, including the number, type and location of referrals and what conflicts or concerns were addressed and resolved. The report will also indicate projected accomplishments in the planning area during the next year.

The CRRMC will assess the need for a major review at five-year intervals to facilitate the following:

(a) a comprehensive assessment of all aspects of the plan including, but not limited to, resource management objectives, zoning, the activity/zone matrix and resource management guidelines;

(b) a public review on the same basis as public involvement in the development of new integrated resource plans; and

(c) preparation of a statement recommending amendments to the plan and future actions required to maintain or promote government resource management activities in the planning area.

Major plan reviews may be undertaken more frequently if required by major resource policy commitments or development of program initiatives.

Amendment Procedures: Changes to resource management objectives, zoning, the activity/zone matrix and resource management guidelines may require amendment to the Eden Valley Integrated Resource Plan. An amendment to the plan may be required as a result of an annual review, major five-year review, government request or a request from an individual, group or organization outside the government. Proposed amendments to the Eden Valley Integrated Resource Plan from outside the government should be made by formal application to the CRRMC. Opportunities for public review of proposed amendments to the Eden Valley Integrated Resource Plan will be provided before changes are approved by the government.

R.4

R.3

Locality of Hartell

OKOTOKS MOUNTAIN

Wolf

Ings

Tongue

Creek

CHANNEL RIDGE

(FORMER)

ROCKY

WHISKY RIDGE

JIM RIDGE

SAM RIDGE

BLUE RIDGE

Sullivan

North

South

Jim

Bull

Coal

River

ID 5

MD 31

5

2

541

22

R.4 R.3 R.2 Tp. 19

OKOTOKS MOUNTAIN

CHANNEL RIDGE

WHISKY RIDGE

SAM RIDGE

BLUE RIDGE

Ings Creek

Tongue Creek

Jim Creek

Sullivan Creek

North Creek

Creek

Creek

5
2
3
BLUE RIDGE
Creek
South
Flat
Wileman
MOUNTAIN
ROCKY
Waldie
Cutthroat
FOREST
Deep
Marston
HIGHWOOD
541
Miller
River
Bull
Coal
22
MILLER GAP
EDEN VALLEY
INDIAN RESERVE
216
NOTCH GAP
Emerson
EDEN
INDIAN R

Tp. 18

Tp. 17

BLUE RIDGE

River

Bull

Creek

Coal

Creek

Flat

Creek

Creek

Creek

EDEN VALLEY

LOCAL INTEGRATED RESOURCE PLAN

BASE MAP LEGEND

PROVINCIA

HARD SURFACE all weather - primary
- secondary

LOOSE or STABILIZED SURFACE all weather - primary
- secondary
- tertiary

LOOSE SURFACE dry weather

TRUCK TRAIL

SEISMIC LINE or TRAIL

RAILWAY

TRANSMISSION LINE

PIPE LINE

GAS PLANT / COMPRESSOR STN.

CANAL (ditch)

FOREST HEADQUARTERS/RANGER STATION/CABIN

RECREATION AREA, developed/undeveloped

LOOKOUT, primary/secondary/crawl tower or point

FLOATPLANE LANDING

AIRSTRIP LENGTH and ELEVATION (amsl) in hundreds of feet
- regular maintenance
- occasional maintenance

HELIPORT/HELIPAD

LOCAL NAME
not recognized by the Geographical Names Board.

MINE (gravel pit)

FORD

SCALE- 1 : 50 000

UNIVERSAL TRANSVERSE MERCATOR PROJECT

kilometres 1 0 1 2 3

-1 miles 0 1 2

West of the Fifth Meridia

EASTERN SLOPES ZONING

PLANNING AREA BOUNDARY

PATENT LAND

ZONING

2 Critical Wildlife

3 Special Use

5 Multiple Use

February 1989

R.4

R.3

EDEN VALLEY

LOCAL INTEGRATED RESOURCE PLAN

Alberta

FORESTRY, LANDS AND WILDLIFE

Public Lands Division

BASE MAP LEGEND

- HARD SURFACE all weather - primary (1)
- HARD SURFACE all weather - secondary (16)
- LOOSE or STABILIZED SURFACE all weather - primary (1A)
- LOOSE or STABILIZED SURFACE all weather - secondary (613)
- LOOSE or STABILIZED SURFACE all weather - tertiary
- LOOSE SURFACE dry weather
- TRUCK TRAIL
- SEISMIC LINE or TRAIL
- RAILWAY
- TRANSMISSION LINE
- PIPE LINE
- GAS PLANT / COMPRESSOR STN.
- CANAL (ditch)
- FOREST HEADQUARTERS/RANGER STATION/CABIN
- RECREATION AREA, developed/undeveloped
- LOOKOUT, primary/secondary/crawl tower or point
- FLOATPLANE LANDING
- AIRSTRIP LENGTH and ELEVATION (amsl) in hundreds of feet (35 17)
  - regular maintenance
  - occasional maintenance
- HELIPORT/HELIPAD
- LOCAL NAME ( )
  not recognized by the Geographical Names Board.
- MINE (gravel pit)
- FORD

PROVINCIAL LOCATION KEY MAP

SCALE- 1 : 50 000

UNIVERSAL TRANSVERSE MERCATOR PROJECTION

kilometres 1 0 1 2 3 4 5 kilometres

-1 miles 0 1 2 3 miles

West of the Fifth Meridian

SLOPES ZONING

PLANNING AREA BOUNDARY

PATENT LAND

ZONING

- 2 Critical Wildlife
- 3 Special Use
- 5 Multiple Use

February 1989

R.4 R.3

ROCKY

MOUNTAIN

FOOTHILLS

BOUNDARY

ROCKY FLAT

Highwood

Emerson Creek

Beaudry Lakes

Miller Creek

Pekisko

Dickson Creek

McConnell Fall

Bear Creek

Greenfeed Creek

Beaver Creek

Sheppard Creek

Devils Bite

Hay Creek

Pekisko Creek

ID 5

MD 31